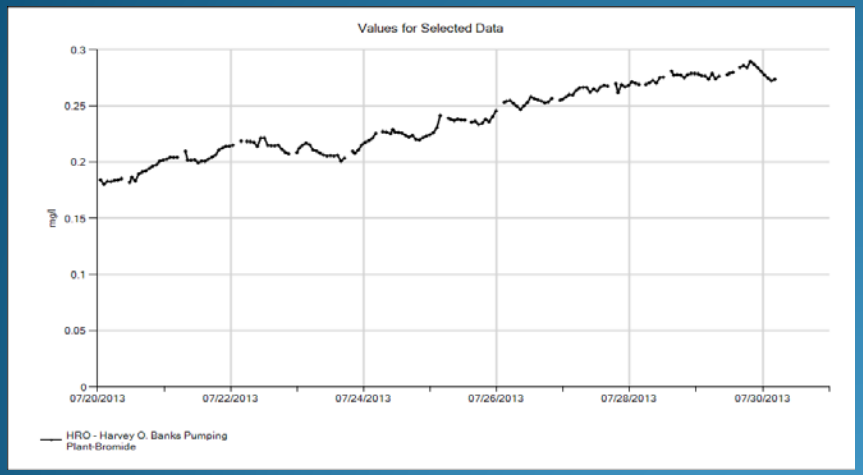
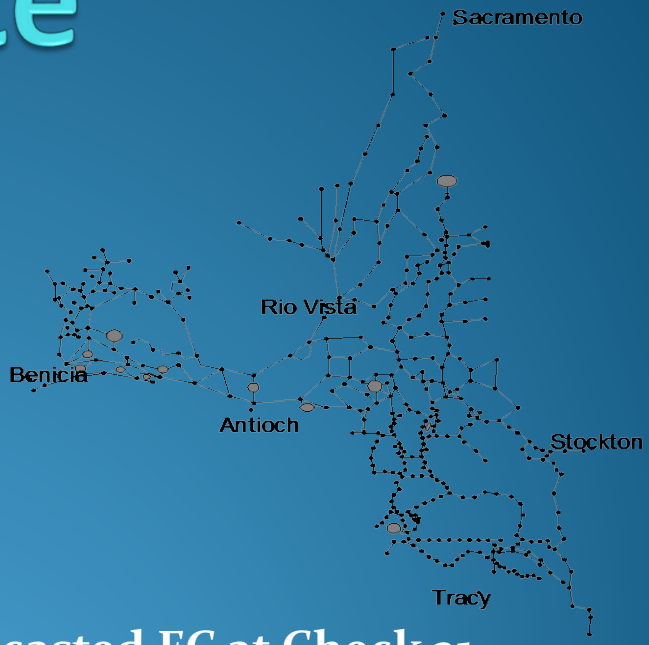
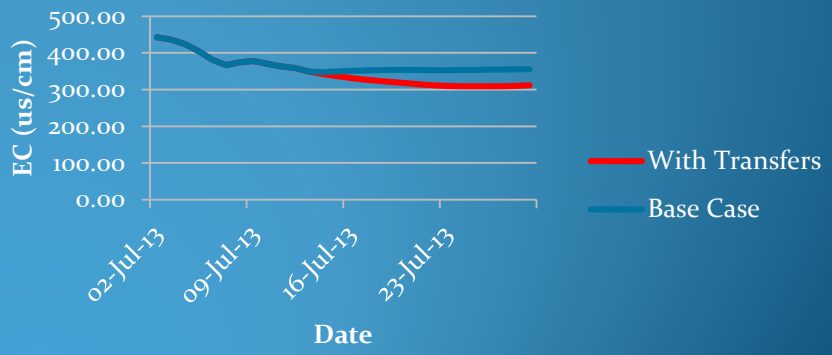
RTDF-CP Update





Forecasted EC at Check 21



Mark Bettencourt
MWQP
RTDF-CP
SWC Annual Meeting July 30 2014

The RTDF-CP continues to produce:

- Real time TOC, DOC, chloride, bromide, nitrate and sulfate data

- Short-term and long-term EC, bromide and DOC forecasts in addition to historical fingerprints.

Modeling Update

New modeling efforts:

Modeling Update

Continuous refinement of current models

Lead Investigators – Bryant Giorgi (DWR OCO) and Siqing Liu (DWR BDO)

Sacramento and San Joaquin River WARMF

DSM2 – Delta

DSM2 – Aqueduct

Historical Fingerprints

Modeling Update

Examples of this are….

Siqing Liu's work on modifying and improving the Sacramento River and San Joaquin River WARMF models

Modeling Update

Delta consumptive use forecasting capability element

Improvements would include:

- Up to date Delta land use surveys
- Flow gauge installation at key locations
- Improvement of Delta precipitation data collection

Modeling Update

Improve the use of aqueduct pump-in data in the short-term aqueduct forecasts

Lead Investigator – Bryant Giorgi (DWR OCO)

Project Partner – Tony Liudzius (MWDSC)

The goal: To find out if ongoing scheduled near term pump-in data is available for use to improve the short-term water quality forecasts.

Modeling Update

Collection, assessment and storage of aqueduct pump-in data

Lead Investigator – TBD

Project Partner – Tony Liudzius (MWDSC)

The goal: Identify, assess and store any available aqueduct pump-in data (flows and water quality) for future use by the modelers to improve the short-term aqueduct forecasts.

Modeling Update

Comparison of water quality forecasts to actual conditions

Lead Investigator – Bryant Giorgi (DWR OCO)

Project Partner – Elaine Archibald (SWPCA)

The goal: To gain a better understanding of the various models by comparing them to actual conditions

Modeling Update

Improvement of the DSM2 nutrient model

Lead Investigator – Hari Rajbhandari (DWR BDO)

Project Partner – Elaine Archibald (SWPCA)

The goal: To further improve the capability of simulating Delta nutrient dynamics using the DSM2 QUAL model.

Modeling Update

Inclusion of additional wastewater treatment plant outflows to the BDO fingerprint model

Lead Investigator – Siqing Liu (DWR BDO) and MWQI Staff

Project Partner – Elaine Archibald (SWPCA)

The goal: The addition of outflow contributions from other Delta affecting WWTP's to the fingerprint.

Modeling Update

Potential planning studies

Lead Investigator – TBD

Project Partner – TBD

The goal: To investigate the need for planning studies based on project operations under assumed conditions and goals.

Modeling Update

Development of the Artificial Neural Network (ANN) by TETRA TECH

Lead Investigator – Sujoy Roy and Limin Chen (Tetra Tech)

Project Partner – Paul Hutton (MWDSC)

Data Dissemination

The newly updated (coming soon) MWQI, RTDF-CP web page

http://portal-dev.water.ca.gov/waterquality/drinkingwater/rtdf_rprt.cfm

A **big** thank you to everyone involved in putting the program together!!!

Dennis Huff
Steve San Julian
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Travis Brown
Jeremy Del Cid
Daniel Wisheropp
and all of the SWC's and independent contractors involved in the MWQP